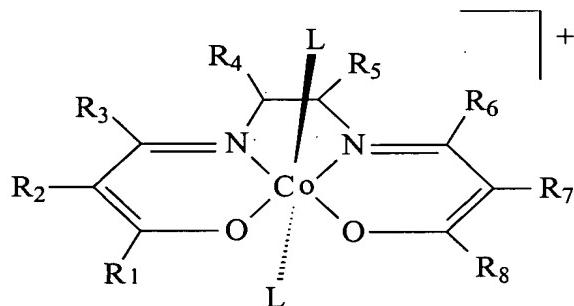


What is claimed is:

1. A method of increasing the stability in aqueous media of a cobalt(III) Schiff base complex comprising:

- (a) obtaining a compound having the structure:



wherein one axial ligand position (L) is NHRR' or 2-methyl,

wherein R and R' are independently selected from hydrogen and substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether; and

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> are independently selected from hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether, hydrophilic organic acid, amine, alkyl amine, alcohol, and aryl; and

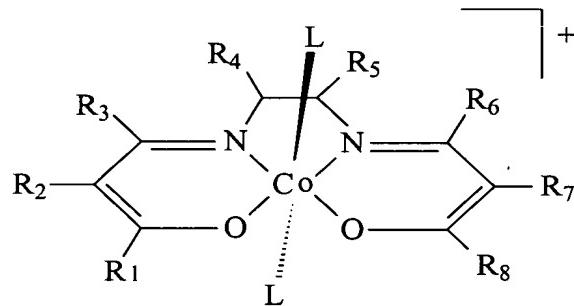
- (b) adding a linker that connects C<sub>1</sub> with the remaining axial ligand position (L) wherein,

the linker has the formula -(CH<sub>2</sub>)<sub>n</sub>-NR''R'''

wherein n is 1, 2, 3, 4, 5, 6, 7 or 8 and

R and R' are independently selected from hydrogen and substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl; or R and R' can cooperate to form a substituted or unsubstituted heterocycle optionally having one or more double bonds.

2. The method of claim 1, wherein n is 3, 4 or 5, and R, R', R'' and R''' are hydrogen.
3. The method of claim 1, wherein n is 2, 3 or 4, R and R'' cooperate to form 2-methyl imidazole, and R'' and R''' cooperate to form imidazole.
4. The method of claim 1, wherein n is 3, 4, or 5, and R, and R' are hydrogen, and R'' and R''' cooperate to form imidazole.
5. A method of increasing the stability in an aqueous medium of a cobalt(III) Schiff base complex comprising:
  - (a) obtaining a cobalt(III) Schiff base complex having the structure:

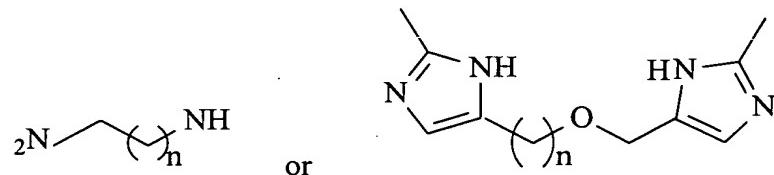


wherein a first axial position (L) and a second axial position (L) are independently selected from NHRR',

wherein each R and R' are independently selected from hydrogen and substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether; or R and R' can cooperate to form a substituted or unsubstituted heterocycle optionally having one or more double bonds; and

$R_1, R_2, R_3, R_4, R_5, R_6, R_7$  and  $R_8$  are independently selected from hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether, hydrophilic organic acid, amine, alkyl amine, alcohol, and aryl; and

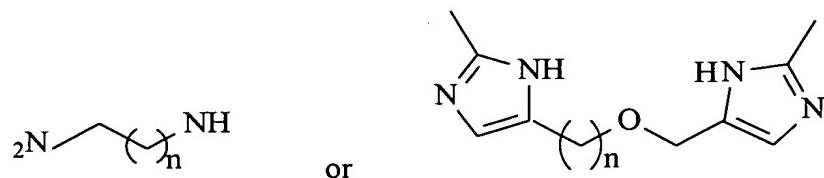
- (b) contacting the cobalt(III) Schiff base complex with a linker that connects the first and second axial positions,
- wherein the chelator has the structure:



wherein n is 2, 3, 4, 5, 6, 7, or 8.

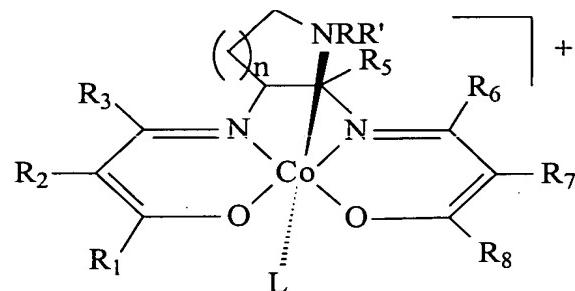
- 6. The method of claim 5, where R and R', wherein at least one L is NH<sub>3</sub> or a substituted or unsubstituted imidazole.
- 7. The method of claim 5, wherein the first axial positions and the second axial position are contained in the same Schiff base complex molecule.
- 8. The method of claim 5, wherein the first axial position is in a first Schiff base complex molecule and the second axial position is in a second Schiff base complex molecule.
- 9. A method of increasing the stability in an aqueous medium of complexes of Cobalt (III) Schiff-bases complexes comprising contacting the Schiff base complex with a bidentate having from about three to about eight CH<sub>2</sub> units that can bind to a first axial ligand position and a second ligand position

10. The method of claim 9, wherein the linker is



wherein n is 2, 3, 4, 5, 6, 7 or 8.

11. A compound having the structure:



wherein:

L is NHRR'; and

each R and R' are independently selected from hydrogen and substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether; or R and R' can cooperate to form a substituted or unsubstituted heterocycle optionally having one or more double bonds; and

R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>5</sub>, R<sub>6</sub>, R<sub>7</sub> and R<sub>8</sub> are independently selected from hydrogen, substituted or unsubstituted alkyl, substituted or unsubstituted alkenyl, substituted or unsubstituted alkynyl, substituted or unsubstituted cycloalkyl, ester, alkoxy, ether, hydrophilic organic acid, amine, alkyl amine, alcohol, and aryl; n is 1, 2, 3, 4, 5, 6, 7, or 8.

12. The compound of claim 11, wherein each R and R' are both hydrogen.

13. The compound of claim 11, wherein R is hydrogen and R' is (C<sub>6</sub>H<sub>5</sub>)<sub>3</sub>C-.

14. The compound of claim 11, wherein each R and R' cooperate to form imidazole and n is 1.
15. The compound of claim 11, wherein L is NH<sub>3</sub> and R and R' cooperate to form imidazole.
16. The compound of claim 11, wherein L is 2-methyl imidazole.